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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Group Art Unit 3632

Examiner J. Szumny

In re application of

William E. Adams III

Serial No. 09/851,639 ✓

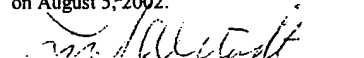
Filed May 9, 2001

) PATENT APPLICATION  
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) SUCTION HOLDER  
) FOR RAZOR  
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**BRIEF ON APPEAL**

I hereby certify that three copies of this correspondence are being deposited with the United States Postal Service as first class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231, on August 5, 2002.

  
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**BRIEF ON APPEAL**

Real Party in Interest

The real party of interest is Adams Mfg. Corp., assignee of the application.

Related Appeals and Interferences

There are no related appeals or interferences.

Status of Claims

Claims 1 through 11 are pending and on appeal. They are reproduced in the Appendix.

Status of Amendments

No amendments were filed subsequent to the Final Rejection.

Summary of the Invention

The claims on appeal define a holding device having two basic elements, a suction cup and a split ring, hook or flag having ends that fit into a transverse hole or bore in the neck of the suction cup. The key feature of this holder is that the bore is not round but is multi-sided and

the ends of the split ring, hook or flag have a multi-sided cross-section complementary to the bore. This enables the split ring to be rotated from a first position to a second position and remain in that second position even while holding a razor. Claims 1 through 7 are directed to the holder having a split ring, claims 8, 9 and 10 define a holder with a hook and claim 11 is directed to a holder with a flag. Claims 2, 3 and 4 define the cross-section of the bore as square, hexagonal or octagonal respectively. According to claim 5 the suction cup is vinyl and the split ring is polypropylene or polycarbonate. There may be a single bore passing through the neck as claimed by claim 6 or two bores on a common axis separated by a web as claimed in claim 7. The hook may be an eye hook, a J-hook (claim 9) or have a head (claim 10).

A wide variety of devices for holding objects on a wall or other flat surface have been available. Many of these holders have one or more suction cups to which a basket, tray, ring, hook or similar structure is attached. For example United States Patent No. 5,078,356 discloses a suction cup having an offset-mounted hook. In this device the suction cup has a cup-shaped base and cylindrical neck with a transverse circular bore. A hook has a straight cylindrical top which passes through the bore. A flat head on the top portion retains the hook in the neck of the suction cup. Because the bore and the top portion of the hook are cylindrical the hook is free to rotate within the bore. Another type of suction cup holder is disclosed in United States Patent No. 1,859,893. The suction cup in that holder has a cylindrical bore through which a cylindrical rod passes. The ends of a U-shaped bail are attached to the ends of the rod. This type of configuration has also been used for towel holders in which a ring having a circular cross section passes through a cylindrical bore in the neck of the suction cup. In all of these holders the supporting ring or hook is made of metal or a plastic which is harder than the neck of the

suction cup which typically is vinyl. In the holder which has a ring passing through the suction cup the ring can be positioned so that the ring lies in a plane that is perpendicular to the wall on which the suction cup is mounted. If a towel is hung on the ring, the ring will not remain in that plane but will be deflected downward.

Injector razors have a long handle and a generally rectangular head mounted at one end of the handle such that the head is transverse to the handle. Consequently, that razor can easily be held in a holder of the type having a ring passing through a cylindrical bore in the neck of the suction cup. However, when a razor is placed in a ring held in the neck of a suction cup as known in the prior art, the ring does not remain in a plane perpendicular to the wall on which the holder was mounted. Instead, the weight of the razor deflects the ring downward until the lower end of the razor rested against the wall.

The claimed razor holder is of the type having a suction cup with a ring. However, in applicant's holder the ring can be positioned in a plane parallel to a wall on which the suction cup will be mounted. The product is packaged with the ring in this position so that a smaller package can be used. Then the ring can be moved to and remain in a plane perpendicular to that wall while holding a razor.

#### Issues

1. Whether the Examiner erred in rejecting claim 11 under Section 112.
2. Whether the Examiner erred in rejecting claim 11 under Section 102 based upon United States Patent No. 5,961,087 to Lee.
3. Whether the Examiner erred in rejecting claims 1-4, 6 and 7 under Section 103 based upon United States Patent No. Des. 388,271 to Moore in combination with

United States Patent No. 5,323,996 to Rendall and United States Patent No 5,313,734 to Roberts.

4. Whether the Examiner erred in rejecting claim 5 under Section 103 based upon United States Patent No. Des. 388,271 to Moore in combination with United States Patent No. 5,323,996 to Rendall, United States Patent No 5,313,734 to Roberts and United States Patent No. 6,131,865 to Adams.

5. Whether the Examiner erred in rejecting claims 8-10 under Section 103 based upon United States Patent No. 5,078,356 to Adams in combination with United States Patent No. 5,961,087 to Lee.

#### Grouping of Claims

Claims 1 through 11 are on appeal. Claims 1 through 10 define a holding device having a suction cup and a split ring or hook that fits into a transverse hole or bore in the neck of the suction cup. Claim 11 is directed to a holder having a suction cup and a flag having one end that fits into a transverse hole or bore in the neck of the suction cup. That claim is patentably distinct from the other claims.

For ease of review, the claims may be grouped as follows:

Group I: Claims 1-10 directed to holder having a suction cup and split ring or hook having two ends with a multisided cross-section that fit into a bore in the neck of the suction cup.

Group II: Claim 11 directed to a holder having a suction cup and a flag having one end that fits into a transverse hole or bore in the neck of the suction cup.

### **ARGUMENT**

#### **I. Claim 11 Complies With Section 112.**

The Examiner improperly rejected claim 12 under Section 112 saying "it appears the 'flag' has been doubly included in lines 1 and 4. " (Page 2 of Office Action dated February 27, 2002).

Line 1 of claim 11 is the preamble of the claim and reads "A holder and flag comprising:" The claim has two elements: (i) a suction cup defined in lines 2 and 3, and (ii) a flag defined in lines 4-7. Line 4 begins, "b. a flag having..."

The function of the preamble is to name or define what is being claimed and the elements in the body of the claim recite the structure being claimed. The content of a simple preamble such as appears in claim 11 does not limit the scope of the claim. Consequently, there is no double inclusion of flag in claim 11. At page 7 of the Office Action dated February 7, 2002, the Examiner says "A 'holder' and a 'flag' are claimed in line 1 of claim 11." Not so. The word "a" does not appear in the preamble before "flag." Rather there is the name "holder and flag" in the preamble and the element "a flag" in line 4. The claim does not contain a double inclusion of a flag. Accordingly, claim 11 meets the requirements of Section 112.

## II. The Claims Are Patentable Over The Prior Art.

### A. Lee does not teach or suggest the holder of claim 11.

The Examiner rejected claim 11 under Section 102(e) as being anticipated by United States Patent No. 5,961,087 to Lee.

Anticipation under Section 102 requires that each and every element of the claimed invention be disclosed in a prior reference. Akzo N.Y. v. International Trade Commission, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986). Unless all the same elements are found in exactly the same situation and united in the same way to perform the identical function in a single prior art reference, there is no anticipation. Scott v. Inflatable Systems, Inc., 222 USPQ 460, 461 (9th Cir. 1983).

Claim 11 requires a suction cup with a neck that has a transverse bore having a multi-sided cross-section. The claim further requires a flag on a pole. That pole must have a portion with a multi-sided cross-section complementary with the multi-sided cross-section of the transverse bore. Furthermore, that portion must be "fitted within the bore so that the flag can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the pole is opposite a side of the bore."

The Lee '087 patent discloses a suction type fixing mechanism in which:

"A suction handle 40 is mounted at the front center of a fixing body 20 having a suction installation part 10 made of a rubber on the back, to drive the suction installation part 10 and to finish with a cover 60 on the front, and on an upper portion of the fixing body 20 a step boss 70 and a rotor 80 are mounted and fixed with a fixing mechanism for a flagpole fixing a flagpole 100." Column 2, lines 10-15

Flag pole 100 is cylindrical and one end of the flag pole is in a cylindrical transverse bore through element 80. Consequently, this structure does not meet the requirements of claim 11 for

a "transverse bore having a multi-sided cross-section" or a "portion of said pole having a multi-sided cross-section."

The Examiner has not read element 80 as the neck portion and element 100 as the pole, but says element 80 is the pole. In the Final Action the Examiner says that element 80 is not part of the neck portion. He also there says that the pole is the structure "in the general direction of '90' and '80' so that it could be received in the bore, and not element '100'." (Office Action, p. 7). There can be no doubt that element 101 is the flag and that element 101 is attached to element 100. If element 100 is not regarded as the pole, then the structure in Lee does not have "a flag having a display portion attached to a pole," as required by claim 11.

The Lee device also does not meet the requirement in claim 11 that the flagpole has a complementary multi-sided cross-section. The rotor 80 fits into a bore within boss 70. As can be seen in Figures 2, 3, and 4, the rotor is cylindrical with a transverse bore 89 containing spring 87 and balls 88. A plurality of grooves 71 are formed at equal angles in the inner middle part of the boss. This arrangement creates a multi-sided bore with a hub and spoke cross-section within the boss 70. The cross-section through the rotor at the location of spring 87 and balls 88 is not a hub and spoke cross-section. Depending upon the position of the balls, the cross-section could be four continuous interconnected arcs with the two larger arcs being the same and the smaller arcs being possibly, but not necessarily, the same. Or, the cross-section could be generally cylindrical when the spring 87 is compressed and the balls 88 are fully within bore 89. This is not a pole having a multi-sided cross-section as required by applicant's claims, but rather a variable structure.



If one considers element 80 plus the bearings 88 to together comprise the pole, then one could view the structure as having four arcuate sides, two formed by element 80 and one formed by each ball. However, the bore shown in Figure 4 has 32 sides. Each of the eight slots 71 has 3 sides and one side is between each slot. When the ball is not in a slot there is no side of the purported pole structure opposite the two sides of the slot. A side of element 80 is opposite the base of the slot and adjacent the sides of the slot.

Applicant submits that those skilled in the art would not regard element 80 in Lee as a pole. The common understanding of the term pole as used in this context is "A long, comparatively slender piece of wood or metal, often tapering and more or less rounded." *Funk & Wagnalls Standard College Dictionary*. That definition applies to element 100 in Lee, but not to element 80. Moreover, Lee calls element 100 a flagpole. What the Examiner has done is to read Lee using applicant's disclosure as a guide. This is improper.

Claim 11 requires that the suction cup have "a neck extending from the cup portion, the neck containing a transverse bore having a multisided cross-section." The Examiner has identified the hollow center of elements 70 and 23 in Figure 2 of Lee as the bore. Implicit of that designation is an identification of those elements plus structure 20 and element 13 as the neck. But, element 20 is not a neck but part of a complicated suction mechanism in which a lever 40 is moved to create a suction grip by lifting the center of the rubber pad 10. Again the Examiner has used applicant's disclosure as a guide to reconstruct the claimed invention from the reference.

Even if we regard elements 20, 23 and 70 as a neck, the bore is axial, not transverse. It extends from the top of element 70. At page 8 of the Final Office Action the

Examiner quotes dictionary definitions of transverse and across. There he says "'transverse' is defined as 'lying or being across', and 'across' is defined as 'from one side to the other side,'" Having said that he then concludes that an axial bore from the top is in fact "transverse." This is wrong.

For all these reasons, Lee '087 does not anticipate claim 11.

**B. The combination of Moore, Rendall and  
Roberts does not teach the claimed holder.**

Moore in the United States Patent No. Des. 338,271 and Rendall in United States Patent No. 5,323,996 both disclose holders in which a ring or hook with a circular cross section is held within a bore of circular cross-section. There is nothing in these references to teach or suggest that the ends of these rings and hook or the bore have a multi-sided cross-section.

United States Patent No. 5,313,734 to Roberts discloses a fishing rod holder having a mount 40 with a bore or barrel 46 that receives a post 36. The barrel has a undulating interior surface that mates with an undulating surface 38 on the post. Roberts teaches at column 2, lines 51-53 that "the holster can be rotated horizontally to different positions by withdrawing the undulating portion 38 from the undulating portions of the barrel." While the post and barrel could be viewed as having multi-sided cross-sections, Roberts teaches away from the requirement of applicant's claims that the multi-sided portion of split ring, hook or flag pole "can be rotated within the bore from a first position to a second position such that in each position every side of the end of the split ring (or hook or flagpole) is opposite a side of the at least one bore." The pole in Roberts can only be rotated after the undulating portion is withdrawn from the undulating portions of the barrel.

The overall teaching in the art is that whenever a structure is to be rotated within a bore, the cross-section of both the structure and the bore are to be circular. The Roberts structure which has a portion with a non-circular cross-section cannot be rotated with that portion in the bore. Roberts in combination with Rendall and Moore teach that one can rotate circular poles within circular bores, but cannot rotate non-circular portions of a pole within a corresponding non-circular barrel. To rotate poles of non-circular cross-section in a bore of similar shape the non-circular portion must be withdrawn from the bore.

Applicant has departed from this teaching and claimed a multi-sided structure that can be rotated within a bore having a complementary multi-sided cross-section. Applicant is able to do this through his use of a vinyl suction cup.

For these reasons the combination of Moore, Rendall and Roberts do not teach or suggest the holes of the claims on appeal.

Claims 2, 3 and 4 require that the multi-sided cross-section be square, hexagonal or octagonal. Despite having found no suction cup with a bore having a non-circular cross-section, the Examiner asserts at page 4-5 of the Final Office Action and page 5 of the first Office Action that it would be obvious to construct the ends of the split ring "of a number of different shapes, including square, hexagonal and octagonal, so long as the ring does not intermittently pivot from a desired position." Applicant challenged the Examiner reaching such a conclusion without any support in the prior art in his response to the first Office Action. The Examiner answered in the Final Action that Roberts' teaches a multi-sided cross-section and "an ordinary artisan would recognize that no unexpected results would occur from the use of numerous other multi-sided cross sections such as square, hexagonal or octagonal. The point of the multi-sided

cross-section is to prevent the ring/post/pole from inadvertently pivoting from a desired position in its respective bore, as is clearly taught by Roberts '734." But, Roberts discloses an undulating surface not a polygon. There is no teaching or suggestion in Roberts or elsewhere in the cited references to modify the undulating surface of Roberts to form a square, hexagonal or octagonal cross-section. Consequently, the Examiner has improperly rejected these claims.

A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, all facts must be considered. The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.

In re. Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA, 1967), *cert. denied* 389 U.S. 1057 (1968).

For a claim to be obvious from a prior art reference or combination of references, the reference or references must disclose each element of the claim and contain a teaching, suggestion or motivation to combine the references in manner to create the claimed invention. In re Sernaker, 702 F.2d 989, 995-996; 217 USPQ 1, 6 (Fed. Cir. 1983). It is wrong to use applicant's disclosure "as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the results of [applicants'] claims. \* \* Monday morning quarterbacking is quite improper when resolving the question of nonobviousness..." Orthopedic Equipment Co., Inc. et al. v. United States, 702 F.2d 1005, 1012; 217 USPQ 193, 199 (Fed. Cir. 1983).

None of the cited references teach a suction cup with a transverse bore having a multi-sided cross section. In all of the suction cups of the prior art that have a transverse bore,

the bore is circular. The two references cited by the Examiner that disclose structures with bores having a multi-sided cross-sectional are not suction cups. Roberts discloses a molded plastic holder in which the post must be withdrawn from the mount to be rotated. Lee discloses a lever operated suction device in which a vacuum is produced by placing a rubber pad on a flat surface and pulling a suction handle 40 to lift the center of the pad away from the surface. Neither reference suggests a multi-sided bore be cut through the neck of a suction cup to receive a similarly shaped end of a ring, hook or pole. One skilled in the art looking to design a suction cup holder would not consider the fishing pole holder disclosed by Roberts and likely would view Lee as following the prior art of placing a circular flagpole in a circular bore. The spring biased locking balls in the rotor of the Lee mechanism would be disregarded as too expensive and complicated as a way of holding a structure within a transverse bore through the neck of a suction cup. Indeed, Lee is attempting to solve the same problem as applicant, namely holding a flag in selected positions using suction. Yet, Lee created a complicated mechanism with at least fifteen pieces shown in Figure 2 to perform the same function as the one piece disclosed by applicant, a suction cup with a multi-sided transverse bore.

The Examiner has not found all the elements of the claims in the combination of Moore, Rendall and Roberts. The Examiner did not identify anything in any reference to provide an incentive or suggestion to modify the teachings of the cited references and reach the claimed invention. Instead, the Examiner resorted to speculation, unfounded assumptions and hindsight reconstruction. Such an approach is improper. The claims are patentable over the combination of Moore, Rendall and Roberts.

C. The combination of to Moore, Rendall, Roberts and Adams '865 does not teach the holder of claim 5.

The Examiner rejected claim 5 under 35 U.S.C. § 103 citing Adams United States Patent No. 6,131,865 in combination with Moore, Rendall and Roberts.

Claim 5 depends from claim 1 and requires that the suction cup be soft vinyl and the ring be polypropylene or polycarbonate. Adams '865 discloses a suction holder in which there is a vinyl suction cup having a transverse circular bore through the neck. A polycarbonate hook has a cylindrical portion that fits within the circular bore. Although Adams '865 discloses the materials set forth in claim 5, this reference does not supply the deficiencies noted in the combination of Moore, Rendall and Roberts. Instead, Adams '865 continues the practice of providing a circular bore and a circular cylindrical hook. Therefore, claim 5 is patentable over Moore in combination with Rendall, Roberts and Adams '865.

D. The combination of Adams '356 with Lee does not teach or suggest the holder of claims 8-10.

The Examiner combined United States Patent No. 5,078,356 to Adams with the Lee reference to reject claims 8-10. Claim 8 is similar to claim 1 but requires a hook rather than a ring. Adams '356 discloses a suction cup with a hook passing through a transverse bore in the neck of the suction cup. Like the structures in most of the other cited references, the bore is circular and the hook is cylindrical. Thus, Adams '356 does not supply any of the deficiencies of the Lee reference discussed above. Neither reference teaches or suggests:

- (i) a transverse bore having a multi-sided cross-section;
- (ii) a portion of a hook having a multi-sided cross-section, or

- (iii) that the hook can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the hook is opposite a side of the bore.

Consequently, claim 8-10 are patentable over the combination of Adams '356 with Lee.

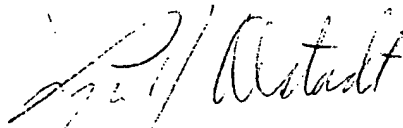
### CONCLUSION

Claim 11 complies with Section 112 and the claims on appeal are patentable over each of the cited references and the teaching of the prior art as a whole. There is nothing in any of the cited references which teach or suggest

- (i) a transverse bore having a multi-sided cross-section;
- (ii) a portion of a hook having a multi-sided cross-section, or
- (iii) that the hook can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the hook is opposite a side of the bore.

Reversal of the rejections and allowance of the appealed claims are respectfully requested.

Respectfully submitted,



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APPENDIX

Claims on Appeal

1. A holder comprising:
  - (a) a suction cup having a cup portion, a neck containing at least one bore having a multi-sided cross section, and
  - (b) a split ring having two ends, said ends having a multi-sided cross-section complementary to the bore, each end sized and fitted within the at least one bore so that the split ring can be rotated within the bore from a first position to a second position such that in each position every side of the end of the split ring is opposite a side of the at least one bore.
2. The holder of claim 1, wherein the multi-sided cross-section of the at least one bore and the multi-sided cross-section of the ends of the split ring are square.
3. The holder of claim 1, wherein the multi-sided cross-section of the at least one bore and the multi-sided cross-section of the ends of the split ring are hexagonal.
4. The holder of claim 1, wherein the multi-sided cross-section of the at least one bore and the multi-sided cross-section of the ends of the split ring are octagonal.
5. The holder of claim 1, wherein the suction cup is made of soft vinyl, and the split ring is made of one of polypropylene and polycarbonate.

6. The holder of claim 1 wherein the at least one bore is a single bore passing through the neck.

7. The holder of claim 1 wherein the at least one bore is a pair of bores on a common axis each bore extending from an outer surface of the neck toward a center of the neck so that a web separates the two bores.

8. A holder comprising:

a. a suction cup having a cup portion and a neck extending from the cup portion, the neck containing a transverse bore having a multi-sided cross section, and

b. a hook having two ends, a portion of said hook adjacent one of said ends having a multi-sided cross-section complementary to the bore, said portion fitted within the bore so that the hook can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the hook is opposite a side of the bore.

9. The holder of claim 8 wherein the hook is one of an eye hook and a J-hook.

10. The holder of claim 8 also comprising a head attached to the end of the hook adjacent the portion having a multi-sided cross section.

11. A holder and flag comprising:

- a. a suction cup having a cup portion and a neck extending from the cup portion, the neck containing a transverse bore having a multi-sided cross section, and
- b. a flag having a display portion attached to a pole, at least a portion of said pole having a multi-sided cross-section complementary to the bore, said portion fitted within the bore so that the flag can be rotated within the bore from a first position to a second position such that in each position every side of the portion of the pole is opposite a side of the bore.